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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/564,911	01/17/2006	Johannis Friso Rendert Blacquiere	NL030897	5339

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EXAMINER

PENDLETON, DIONNE

ART UNIT

PAPER NUMBER

2627

MAIL DATE

DELIVERY MODE

09/24/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/564,911

Applicant(s)

BLACQUIERE ET AL.

Examiner

DIONNE H. PENDLETON

Art Unit

2627

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 August 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-8 and 10-21 is/are pending in the application.
- 4a) Of the above claim(s) 2, 3, 11-13 and 15-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 5-8, 10 and 14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB06)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ ~~Notes of Informal Patent Application~~
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. **Claims 1, 5-8, 10 and 14** are drawn to the elected species 8, illustrated in Fig. 6B.
2. **Claims 2, 3, 11-13 and 15-21** are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to, at least, nonelected Figures 5B, 5C and/or 5D, there being no allowable generic or linking claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1, 5, 8, 10 and 14** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Sims, III et al (US 7,058,852)** in view of **Hwang (2008/0074975)**.

Regarding claims 1 and 8,

Sims teaches a device for recording information in blocks having logical addresses, the device comprising:

A recording unit ("**351**" in **figure 3**) for recording marks in a track on a record carrier representing the information,

A controller (see **processor "312"** in **figure 3**) for controlling the recording by locating each block at a physical address in the track, the controller comprising

addressing means for translating the logical addresses into the physical addresses and vice versa in dependence of defect management information (**column 9:44-47 teaches mapping physical addresses to logical addresses, while column 12:4-7 teaches conversion of logical address to physical address**),

defect management means for detecting track defects and maintaining the defect management information in defect management areas on the record carrier (**see discussion of primary and secondary defect lists in column 3:52-55, and column 4:11-15**), the defect management information including assignment information indicative of assignment of physical addresses in first parts of the track to at least one user data area, and assignment of physical addresses in second parts of the track to defect management areas (**column 12, lines 31-41**), and the defect management information including remapping information indicative for translating a logical address initially mapped to a physical address exhibiting a defect to an alternate physical address in a defect management area (**column 4, lines 11-15**), and

assignment means for adapting the assignment information depending on a detected defect, detected during recording, and a defect management area having a starting physical address near the detected defect (**see discussion of “DMA” in column 13:47-58, which is “near” the detected defect, as broadly claimed**).

Sims fails to expressly teach that the new defect management areas is preceded by a user data area or a free area and is followed by a user data area or a free area, A free area being an area to be assigned either as a user area or a new defect management area.

HWANG teaches in [0057] creating a defect management area (see “secondary TDMA” in Fig. 1; also see “secondary TDMA of second record layer” in [0057]) which is preceded by a user data area or a free area (see “Spare area 1” in figure 1) and is followed by a user data area (see “User Data Area” in figure 1) or a free area, a free area being an area to be assigned either as a user area or a new defect management area (“Spare Area 1” is used for defect management purposes and thus corresponds to the “free area” as described).

It would have been obvious, at the time of the invention, to modify Sims, per the teachings of Hwang, creating supplemental defect management areas when subsequent defects are found, for the purpose of allowing for the update of newly detected defects wherein the defect information which is subsequently recorded in the defect management area of the data area may be moved to the DMA of the lead-in area. Thus, it is possible to have faster reading of information recorded on the disc, and also to increase the reliability of the information by recording the defect management information in a plurality of areas.

Regarding claim 5,

Sims teaches that the defect management area includes a range of physical address in a part of the track originally assigned to the at least one user data area, the part of the track being a free space in the user data area (Figure 2 of Sims illustrates that the same area used for recording user data, may be allocated as a defect management area when a defect is detected).

Regarding claim 10 and 14,

Hwang teaches the device as claimed in claims 1 and 8, wherein the defect management area starts at a location of the detected defect (see **Figure 1, as broadly claimed**).

4. Claims 1 and 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ohata (U.S. 6,469,978)** in view of **Tokumitsu (Pub. No. US 2002/0150009)** and **Hwang (2008/0074975)**.

Regarding claims 1 and 8,

Ohata teaches a device for recording information in blocks having logical addresses, the device comprising:

a recording unit ("**3**" in **figure 13**) for recording marks in a track on a record carrier representing the information,

a controller (**8** in **figure 13**) for controlling the recording by locating each block at a physical address in the track, the controller comprising

An addressing unit (**6** in **figure 13**) for translating the logical addresses into the physical addresses and vice versa in dependence of defect management information (**column 10:19-24**),

A defect management unit ("**4**" in **figure 13**), for detecting defects and maintaining the defect management information in defect management areas on the record carrier (**column 10:29-41**),

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the defect management information including assignment information indicative of assignment of physical addresses in first parts of the track to at least one user data area **(column 7:64-column 8:5, emphasis on line 5 of column 8; also column 10:29-34, emphasis on lines 33-34)**, and assignment of physical addresses in second parts of the track to defect management areas **(column 7:52-63; figure 2; also column 10:35-37)**, and the defect management information including remapping information indicative for translating a logical address initially mapped to a physical address exhibiting a defect to an alternate physical address in a defect management area **(column 8:29-36; also column 10:44-47 which discloses mapping logical address to physical address)**, and

an assignment unit **(combined operations of "6" + "7" in figure 13)** for adapting the assignment information in dependence of a detected defect, detected during recording, by creating new defect management area having a starting physical address near the detected defect **(According to the Applicant's specification, lines 15-17 of page 10, "creating" is defined as "assigning an additional physical address...". Column 8, lines 29-36 discloses that if a sector in the user area may not be used due to defect, a spare area is *used* in place of the defective sector. In lite of the Applicant's specification, the "use" of a spare area is interpreted as corresponding to "creating new defect management area" as newly amended.)**

Ohata does not expressly teach that assignment information is adapted depending on a detected defect, detected during recording.

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TOKUMITSU teaches, in **paragraph [0002]**, assigning an alternative block i.e., adapting assignment information, for recording therein when a defective block is detected during the recording operation.

It would have been obvious for one of ordinary skill in the art at the time of the invention to combine the teachings of Ohata and Tokumitsu, such that defective area may be detected during the recording operation, for the purpose of enabling the recording of data to the optical disc in question.

Ohata, modified by Tokumitsu, fails to expressly teach that the new defect management areas is preceded by a user data area or a free area and is followed by a user data area or a free area, a free area being an area to be assigned either as a user area or a new defect management area.

Hwang teaches in **[0057]** creating a defect management area (see **“secondary TDMA” in Fig. 1; also see “secondary TDMA of second record layer” in [0057]**) which is preceded by a user data area or a free area (see **“Spare area 1” in figure 1**) and is followed by a user data area (see **“User Data Area” in figure 1**) or a free area, a free area being an area to be assigned either as a user area or a new defect management area (**“Spare Area 1” is used for defect management purposes and thus corresponds to the “free area” as described**).

It would have been obvious, at the time of the invention, to further modify Ohata, per the teachings of Hwang, creating supplemental defect management areas when subsequent defects are found, for the purpose of allowing for the update of newly detected defects wherein the defect information which is subsequently recorded in the defect management area of the data area may be moved to the DMA of the lead-in area. Thus, it is possible to have faster reading

of information recorded on the disc, and also to increase the reliability of the information by recording the defect management information in a plurality of areas.

Regarding claim 5,

Ohata teaches the device as claimed in claim 1, wherein the new defect management area include a range of physical address in a part of the track originally assigned to the at least one user data area, in particular the part of the track being a free space in the user data area **(column 9:23-34)**.

Regarding claim 6,

Ohata teaches the device as claimed in claim 1, wherein the device comprises a contiguous recording detection unit for detecting a series of blocks having a continuous logical address range to be recorded in a corresponding allocated physical address range **(column 10:19-24, 44-47, and column 13:8-20)**, and the new defect management area is outside the allocated physical address range **(see, column 13:40-50)**.

Regarding claim 7,

Ohata teaches the device as claimed in claim 6, wherein the contiguous recording detection unit is for detecting a continuous recordings indicator in a recording command, or for detecting the series of blocks representing real-time information, or for detecting file system information for detecting that the series of blocks constitute a file **(Ohata teaches a device for use with conventional optical discs having data thereon or requiring data to be written thereto, in which case user data areas having data written therein will be indicative of continuous recordings as claimed)**.

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Response to Arguments

5. Applicant's arguments with respect to claims rejected in the Official Action mailed 6/23/2010 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DIONNE H. PENDLETON whose telephone number is (571)272-7497. The examiner can normally be reached on 10:30-7:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on 571-272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dionne H Pendleton/
Examiner, Art Unit 2627

/Wayne Young/
Supervisory Patent Examiner, Art Unit 2627